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Cover: Copperhead, *Agkistrodon contortrix*, Jackson County, Illinois, 28 September 2012. Photograph by Stephen L. Barten, DVM.

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Hot Tracks, Fast Turtles—The Unforeseen Consequences of Well-intended Turtle Derbies

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. . . the race is not to the swift . . . Ecclesiastes 9:11

Maryland Traditions

Despite the previous day's breaking news on a key general defecting from the ranks of the Syrian army, news that thousands of families in the mid-Atlantic states were still without power from a storm that came through the previous week, and the seemingly endless political commentary about the Supreme Court's ruling on the Democrat's controversial health plan, the headline for the Saturday morning edition of the *Baltimore Sun* simply read "104°F." The local radio stations were saying the heat index was expected to reach 111°F. The Chesapeake Turtle Derby was to take place that morning and I arrived early, hoping to talk to some of the folks as they waited in line to register their turtles for the race.

At 9:30 I drove up to the corner of Patterson Park where the race was to be held. There were joggers with headsets, the tennis courts were all in use and on a distant field I could see there was a soccer match in progress. Everywhere there were people walking dogs and pushing baby carriages. Registration for the annual turtle derby was to start at 10:00, but in years past people arrived early to secure a parking place as this had become a popular, well attended, 4th of July weekend event. It was free and open to the general public. I would wait, but it was already beginning to get hot.

The storm of the previous week had taken its toll on a few of the park's trees. Many had lost major branches and three or four linden trees and one chestnut oak had been uprooted. The trunks had been cut up for removal but were still lying about. I entertained myself by trying to count the growth rings on the trees' cross-sections. The chainsaw work for the most part obscured the rings and it was difficult to get a good count. One of the secondary branches of a linden had a clean cut and I counted 72 rings; a recount, yep 72. The trees themselves clearly passed the century mark, and were probably considerably older than that. About 10 A.M. someone drove up, parked their car, and found a shaded place to set up a folding chair near the site where the races would take place. I walked over to inquire about the event. Because of the heat forecast, late the previous day it was decided to postpone the races until later in the summer. Everyone who inquired about the event and all of those people who registered turtles the previous year were notified by email that the race had been called off. I hung around for another half an hour anticipating disappointed people with their turtles being informed of the cancellation. No one came, and I returned to my car. With the AC running, I circled the park several times expecting to see someone bringing turtles. Although people were still jogging in the 100°F heat, a good way to burn off extra pounds, no turtles; that was it. I headed back to North Carolina, about a six-hour drive on a holiday weekend.

The 2007 Chesapeake Turtle Derby in Patterson Park. Photograph by Sandra Barnett.

Patterson Park itself has a long and interesting history (Almaguer, 2006). It was an important stronghold in the defense of Baltimore in the War of 1812, and was used as a Union troop encampment and the site of a surgical hospital in the Civil War. Five acres of land were donated to the city by William Patterson for a public park in 1827, and the city added to it with the purchase of additional land. Today the 137-acre park has public recreational facilities, including an ice-skating ring, a small lake and various hiking paths. The initial development of the park was paid for with funds from Baltimore's former streetcar system. Twenty percent of the fares went to the city's park system, and this probably accounted for many of the trees that were planted throughout the park.

I picked this particular turtle race, the 72nd annual Chesapeake Turtle Derby, in part because of its history, arguably the longest continuously run turtle race in the country, and the fact that during my pre-school years my family lived only a few blocks from the park. Based on family photographs the linden trees had grown in the intervening years, but still they had been of considerable size even back in the 1940s. I recall my sister taking me to one of the turtle races when I was perhaps four. The race is conducted each year in the shadow of the Pulaski Monument near the southeast corner of the park. Casimir Pulaski, a Polish officer who later became a brigadier general of the American cavalry during the Revolutionary War, is one of the most honored people in American history. In a resolution passed by Congress and signed by President Obama in November 2009, Pulaski was given

honorary U.S. citizenship (Mann, 2009; Public Law No:111-94). The Pulaski monument depicts a relief sculpture of the general leading a cavalry charge, a fitting monument in that the cavalry unit was headquartered in Baltimore and Pulaski did most of his recruiting there. The monument was commissioned in 1929 but not completed until 1951—even turtles can move more quickly, and fortunately the park's trees grew faster as well.

Baltimore City Parks and Recreation runs the turtle derby, and it is one of their best-attended public events. Reliving my childhood, I attended the races several times in recent years. Typically about 100 turtles and several hundred spectators show up for the Independence Day weekend's public event. By late morning there is usually a long line of families waiting to register their sundry turtles. Most have names like Pokey, Myrtle, Speedy, Junior, Booger, and of course Shelly, and many have painted or otherwise decorated shells. The most popular "otherwise" is nail polish. The majority of contestants are box turtles that were captured by parents so their children could enter them. I interviewed the participants in 2008; of the 69 box turtles raced, 89% of them had been captured just for the event, and some families had two or three turtles entered. There are four races, one for box turtles, one for tortoises and one for all other types of turtles, plus a final race where the winners of the three prior races compete for the grand prize. The races are run in heats with the winners advancing to the finals. The racetrack consists of an inner circle into which the "contestants" are placed, and an outer circle which the turtles must cross to win the race. After being released into the inner circle, the first turtle to cross the line of the larger outer circle is pronounced the winner. On hot sunny July days the turtles are more than ready to head out, moving like the ones you see crossing highways after a heavy summer rain. Although many don't move in a straight line, the race is usually over in a minute or so. Trophies are presented to the winners and their proud "owners." The race is only a few yards (16 feet if the turtles stick to a straight path), but turtles being turtles, there is plenty of time for cheering and shouts of encouragement for the contestants. The "racing" turtles are quite a contrast to the bronze sculpture of Pulaski's cavalry, or the traffic zipping from stop light to stop light on Rte. 40, also known as Pulaski Highway, just several blocks to the north. Patriotic music is broadcast through speakers as trophies for each category are presented to the winners and their proud "owners." Perhaps 200 or more people attend the race, with the majority of those being the families that are entering contestants in the race. Happy children and a good summer family event!

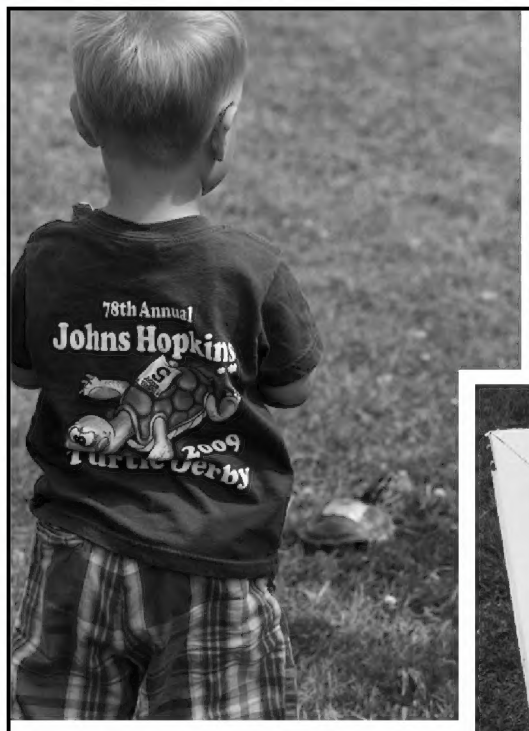
A contestant takes a pre-race practice run during registration at the 2008 Bel Air Turtle Derby. Photograph by David S. Lee

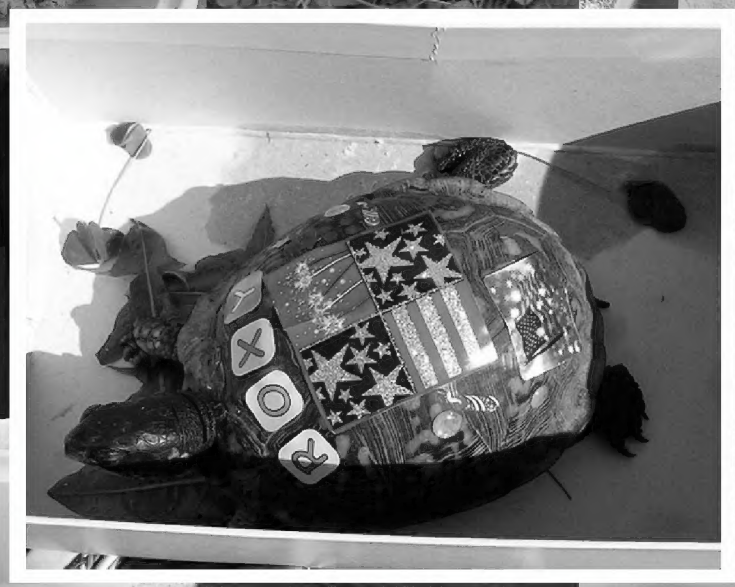
A traditional spring prelude to the Baltimore Preakness since 1931, is the annual Johns Hopkins Hospital Turtle Derby. The race, held in May, on the Friday before the Preakness, is run only a few miles from Patterson Park. Over five hundred people attend, many of them young hospital patients hooked up to I.V. machines. Children, some in casts, stand side by side with the hospital's faculty and staff. In 2000 the derby raised $3,500 for a "Child Life Program" and a local daycare center that helped children being treated with cancer. Similar amounts were raised in other years in order to help the hospitalized children. This event would probably be the oldest continuously run turtle race in the country were it not for a several year period when the race fizzled due to a lack of staff interest. By 1980 it was back on track, but by my calculations this leaves the Patterson Park race as our longest continually running annual turtle race.

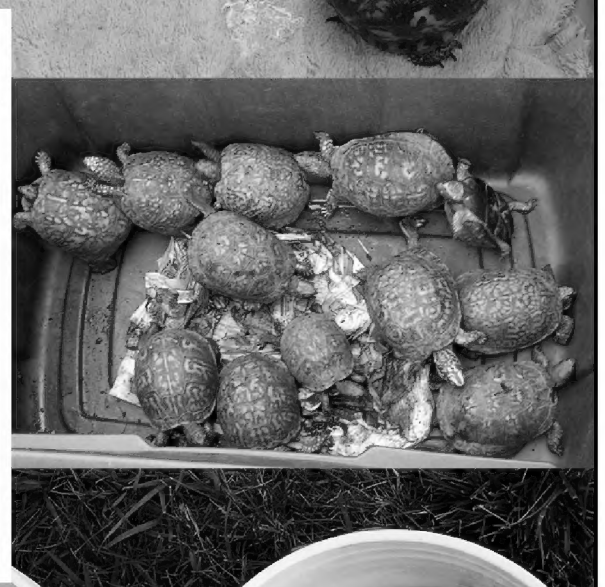
Just up the road, another 4th of July race is organized by the patrons of the Bel Air Independence Day Committee. It attracts a similar audience, including people from nearby states. The rules are similar. Typically over 100, and in some years up to 200, turtles are entered. In the recent past nearly all were native wild-caught box turtles. By 2008 when I first attended this race, only 56% of the turtles were eastern box turtles, and still in 2012 only 57% of the 130 or so entries were box turtles. Box turtles are becoming increasingly hard to come by. In addition to eastern box turtles, locally captured diamondback terrapins, eastern mud turtles, red-bellied turtles and feral red-eared sliders were entered in the race. A few animals were purchased in local pet shops the week before just so children could enter a turtle. In 2008 they included one ornate box turtle and two Russian tortoises. Interestingly, one of the Russian tortoises had an American flag painted on its carapace; a most patriotic chelonian, I suppose. Clearly the Cold War is now over. Two pet African spur-thighed tortoises were also entered. The event was preceded by hamster races and immediately followed by The Great Bel Air Frog Jumping Contest and Watermelon Eating Contest.

So how common and widespread are turtle races?

These are the three major turtle racing events in just the







(photographs by David S. Lee and Sandra Barnett)

Baltimore area. Each year there are hundreds of turtle races taking place throughout the country. Almost every state has various towns and organizations sponsoring turtle races. Typically they occur around the 4th of July, but they also are held concurrently with other outdoor summer activities such as county fairs. Just reading through all the turtle racing events that come up on a web search or watching all the ones that pop up on Youtube would probably take days. The races do not seem to be clustered in any particular region of the country. A number of the events date back 40 years or more and appear to be continuing annual events. Even the Indianapolis Zoo has them; this year they held their 31st Annual Zoopolis 500.

The actual number of turtle races conducted annually in this country is difficult to estimate. Heeb (2007) reported annual races occurring in 35 states, totaling 520 events. This number is conservative as it does not include the smaller, informal, less advertised races, so the actual number could easily be twice that. One problem in trying to estimate the number of individual races is that some towns run races on a weekly basis throughout the summer. I know of no races in North Carolina, but this does not rule out small-scale backyard events. In a number of states there are multiple races sponsored by various towns and organizations. Some states, Kansas and Missouri for example, have 40 or more different races taking place every year. Oklahoma has 28. Informal races in bars and other establishments are impossible to track. But if we assume there are 520 major races per year with an average of 50–100 turtles per event, that's a lot of turtles, perhaps rivaling the nation's pet trade in the number of box turtles taken from the wild each year. Based on the number of entries at over 50 races, Heeb (2007) estimates 26,000 box turtles are taken from the wild each year for use in these races. If one adds to that road mortality, habitat fragmentation and loss, effects of pesticides and other contaminants, mortality from mowing, people taking turtles home as pets, predation by pet and feral dogs, increases in populations of human subsidized predators such as raccoons, and the continued commercial trade, the number of box turtles lost per year to human-related activity is phenomenal. The combined toll is now threatening what not too many decades back were common species.

It was not until I started digging into all this that I became aware of an important aspect of turtle racing. Bars and taverns often use these events to entertain customers. Throughout the country, bars hold turtle races; some are nightly, others weekly. There are many variants of this activity, but typically patrons get a ticket with each drink they purchase. They can then use these to place bets on particular turtles to come in first or last place. The winners are rewarded with tee shirts or more drinks. In most cases it is not clear if the customers need to bring in their own turtles to race in these events. A few bars state you can rent turtles if you forgot to bring one. Online videos of some of the races indicated that the turtles used were mostly box turtles and red-eared sliders. Based on the behavior of the crowds the events generally take place late in the evening, apparently in an attempt to keep the patrons in the respective establishments. I was surprised to learn that the Turtle Kraals Restaurant and Bar in Key West, a site I reported on earlier (Lee, 2012), now holds turtle races. This appears to be a new and growing trend; bars throughout the country have started running turtle races. This bar game fad can now be found from Florida to Chicago, and Houston west to L.A.

The history of prize money and betting on turtle races goes back to at least 1924, when races started in Kay County, Oklahoma. Within a few years, thousands of "terrapins" (box turtles were often called "highland terrapins" at the time) were being entered in the race and by 1930 first prize winnings exceeded $7,000. The races ended in 1931 when the "terrapin derby" was ruled to be a lottery (Anonymous, 1960). About the same time Boston police raided a street carnival where five men were caught and later fined for racing 13 turtles. The prizes were boxes of candy. Police confiscated the candy but not the turtles (Anonymous, 1930).

The issues

I thought about all the sundry issues on the drive home from the postponed Patterson Park race; basically they fall into four major categories. Their relative importance depends on one's perspective.

Native box turtle populations: Box turtles, by far, are the turtles most often used in turtle racing. Multiple studies throughout their range show that box turtle populations have been in decline since the 1950s (see summary in Ernst and Lovich, 2009). Like most other turtles, box turtles exhibit strong site fidelity and typically have relatively small home ranges, ones they seem compelled to return to if they are released anywhere except at their site of capture. In a several year attempt to repatriate box turtles in Pennsylvania, radio-tracked turtles wandered away from the release area, and over 60% of the individuals failed to establish new home ranges (Belzer, 2002). Cook (2004) introduced 337 box turtles to a 579-hectare site in Brooklyn, New York. The area was a former salt marsh that had been filled in during the 1920s. Over a seven-year period only half of them established home ranges; the others were unable to establish territories, or simply wandered off the site. Research by others has shown similar problems and emphasizes that displaced box turtles are unlikely to survive (Hester et al., 2008). How strong is this homing instinct? I have seen pet box turtles that had been maintained in outdoor pens for years, later released miles away into appropriate habitats, and within weeks found by their owners pacing the outside of their former pens trying to get back in.

Dodd (2001) and Ernst and Lovich (2009) provide excellent overviews of population studies of box turtles. It is not uncommon for box turtles to reach ages of 60 years or more, and individuals have been known to live well past the century mark. All studies of wild turtle populations show that there is no support for a sustainable use. Perhaps the most compelling statistical model showed that a 95% annual adult survival rate is needed for a stable population of ornate box turtles (Doroff and Keith, 1990), thus if only one adult box turtle was removed from a sizeable and healthy population per year, over time the population would crash. Nazdrowicz et al. (2008) discuss the nature of box turtle populations in fragmented landscapes, the types of habitats that typically serve as a source for turtles used in races.

Another consideration is the timing of these races. After a threat to close down one 4th of July race in Pennsylvania

(Moore, 2012), concerned parents of children who planned to participate in the event wrote in to say that the children who had started collecting turtles around Memorial Day would be disappointed. Thus, it seems that many of the turtles used in these races are held captive through a major portion of their prime egg laying period. In fact, gravid wild-caught box turtles have shown up at the Patterson Park derby more than once, and a gravid diamond-backed terrapin laid an egg on the race course in 2003. Heat is another issue for midsummer turtle races, many of which are run on asphalt, and even on natural substrates midday ground temperatures can easily reach 102–125°F.

Many of the turtle races run today were started back in the mid-1900s when box turtle populations were much healthier and the landscape was less fragmented. While individual turtles can persist for decades if their core home range remains intact, these relict individuals do not represent sustainable populations. Most of the turtles that are being entered into races are not just older than the participants entering them, but some likely date back to a period prior to the founding of the particular annual event into which they are being entered. Just as in the Bel Air race, as box turtles have become harder and harder to find, other species of turtles have started showing up as contestants. Some of these are locally captured, while others are purchased in pet stores just for the event, or represent turtles and tortoises that are family pets. The Johns Hopkins race is now run with turtles rented from turtle farms and biological supply companies. In doing this, they do not need to have the turtles examined or the race approved by an animal use committee. That the Hopkins race has shifted to renting turtles from turtle farms for their annual race has nothing to do with conservation concerns for local turtle populations; they were forced to do that as native box turtle populations in the greater Baltimore area became almost non-existent.

Human health risk: In that considerable numbers of young people attend these events, and the children entering turtles in the races by the very nature of the event are handling the turtles, *Salmonella* infections are always a concern. *Salmonella* bacteria and other pathogens are not just on small turtles as might be implied by the federal law prohibiting the sale of turtles under four inches. In that the turtles are confined to the same small areas prior to the races, the potential for transmission of disease from one turtle to another is substantial. In addition, the turtles often then go back home with the participants' families, where children have further contact with the turtles. I have not seen any indication that the organizers of these races have even considered this issue, as there are not printed alerts to the potential problem handed out at the events. Furthermore, hand sanitizer is not typically made available to the participants, nor do families normally bring any. C.D.C. news releases, which for the most part focus on illegal sales of "baby" turtles, to date have overlooked turtle races that, in reality, provide the setting for mass contaminations and regional outbreaks of *Salmonella*.

While the issues caused by transmission of *Salmonella* from turtles to people are well known, *Campylobacter* is another serious bacterial infection that be transmitted by handling turtles. It can result in serious gastroenteritis, diarrhea, abdominal cramps, nausea, and fever. There are cases of adults, children and infants becoming infected with *Campylobacter* after exposure to wild-caught box turtles that became family pets. As with *Salmonella*-infected turtles, these likewise fail to exhibit symptoms of the infection, but they can serve as a reservoir and periodically shed the bacteria (Harvey and Greenwood, 1985; Johnson-Delaney, 2006). It is interesting to note that the 4th of July Bel Air turtle races are followed by frog-jumping and watermelon eating contests. I have seen no effort to have the children participating in the events sanitize their hands between any of the contests.

Humanitarian and health concerns for the turtles: From the turtles' perspective inhumane treatment is also a consideration. Turtles are often captured weeks prior to these races and retained in makeshift containers. Five-gallon plastic buckets seem to be the housing of choice, as families have no clue as to the needs of their captives. The people holding the turtles often have no more idea of how to care for them than they would an orphaned songbird or a potted orchid. One year at the Patterson Park race I had the opportunity to examine 10 eastern box turtles that had been captives for six months or more. About half of these showed external health issues such as overgrown beaks, eye problems and ear infections. When these turtles are offered food in captivity, the food items presented are usually ones the turtles fail to recognize as edible. Its is apparent that many of the confinement containers, used to both house and bring the turtles to the events, are seldom cleaned. Some turtles are left to overheat in locked cars or the backs of pick-ups, and the creatures are often stacked together before and after the races. Turtles are frequently left in full exposure to the summer sun for hours on race days. It's hard to think of turtles, with their deliberate movements and protective shells, as stressed, but when moved about turtles do become stressed, and at such times internal parasites and diseases begin to take their toll. It is interesting, that of all the issues raised about turtle races on internet sites, the humanitarian ones are the most often discussed, but solutions are seldom proposed.

While the exact avenues of disease and parasite transfer in turtles are not well understood, contact by both people and turtles with unhealthy individuals is obviously something to be avoided. Many illnesses are due to transmissible infections, and turtles can infect each other even when only briefly brought into close contact. Bacteria-caused abscesses, eye and respiratory infections, and shell rot are commonly encountered in captive box turtles. Both bacterial and viral ear abscesses (Holladay et al., 2001) as well as respiratory diseases resulting from microplasma (Feldman et al., 2006) are well documented in wild and captive box turtles. In 2008 several cases of ranavirus were detected in wild box turtles in Maryland (Shaver, 2012). While the mode of transmission of the virus is not definitively established it is suspected to result from contact with infected animals. This is a serious disease; it develops quickly and is untreatable. It has killed both wild and captive turtles and tortoises in a number of states (De Voe et al., 2004; Johnson et al., 2004, 2007; Allender et al., 2011; Allender, 2012). Turtles that are exposed to ranavirus at racing events and later released would not only have the have the potential to spread the virus into wild turtle populations but they could also contaminate native amphibians. The virus has been documented in both larval and adult salamanders and frogs.

Parasite transfer varies with the type of parasite, but box turtles, even healthy ones, typically are hosts to numerous types of external and internal parasites. Stuart and Miller (1993) examined 117 box turtles from North Carolina and found nine species of helminth parasites. For some species of parasites there were 76–83% infection rates in their sample. A good summary of the diseases and parasites of box turtles is presented by Dodd (2001).

Staff overseeing turtle derbies would be wise to check animals at registration for swollen eyes, nasal discharge and obvious infections. Having a veterinarian with experience in reptile diseases on-site is something the sponsors of turtle races should consider. The issues are exacerbated by the fact that often many species of turtles and tortoises are brought to these events: long term family pets, wild-caught, captive-bred, and recent pet shop purchased animals, many with unknown histories, all come in contact during these events. Fecal material on the plastrons of the turtles, and exposure during pre- and post-race contact could result in establishment of new parasitic faunas in the turtles. How will this affect native populations of any number of turtle species if the contestants are released back into the wild?

Release of turtles after the race: Unlike many states, Maryland regulates against turtles held in captivity, or ones coming in contact with other captive turtles, being released back into the wild. This regulation is the result of the recent discovery of ranavirus in wild box turtle populations in that state. The regulation is nearly impossible to enforce and most people are totally unaware of it. In an ideal world, a quick release at the site of capture immediately after a race would be the logical solution. But people often release the turtles at sites of convenience, and most are totally unaware of their actual habitat needs. This is all compounded by the fact that the turtles may have been exposed to various diseases and parasites from other turtles participating in the event. Eighty-four percent of the box turtles and 50% of the other turtle species entered in the 2012 Bel Air Race were wild-caught, and many families said they would release the turtles after the race. Most participants failed to follow the advice of the Department of Natural Resources not to use wild-caught turtles, and not to release turtles back into the wild. This may be a total coincidence, but several years back, a day after the Patterson Park races, I saw a number of box turtles wandering about on a two-lane country road just east of Baltimore. It was the closest extensive rural setting outside of the city. It was early July, and there had not been rain for some period. Were the turtles simply dumped there by the race participants as they drove home the previous afternoon? It seems likely that the painted turtles and red-eared sliders living in the Patterson Park lake are ones released from former turtle races. In the 1960s there were only a few documented records of feral sliders in Maryland (Harris, 1969); today they are widely distributed in the state. While releases of unwanted pets from a disposable pet market certainly are responsible for most of the state's feral slider populations, turtles released after races likely account for redistribution and establishment of additional populations.

As urban growth expanded into the counties surrounding Baltimore, box turtles have all but disappeared from the landscape, and race participants often are forced to acquire their animals through pet stores. Lee and Smith (2010) reported on a Russian tortoise that showed up at the 4th of July turtle races in Bel Air, Maryland. Among the 100 or so box turtles that had been gathered up for the event there was one very unhealthy Russian tortoise. A parent had purchased it earlier in the week for her son to race. They had not considered what they would do with it after the race, and thought it would be best if they simply released it somewhere. So not only was the stage set to introduce all sorts of Old World bacterial and viral infections to the turtles participating in the race, but into the wild as well. I have since learned that Russian tortoises are regularly entered in turtle derbies. I, and others, have seen them on a number of occasions in the various Maryland races. This species is commonly sold in the large chain pet stores and parents looking for a turtle for their child to race simply purchase one. These small tortoises are often raced in "heats" with box turtles. This is unfortunate. Wild-caught Russian tortoises commonly carry herpesvirus and lung and gastrointestinal parasites that can be transmitted to other turtles and tortoises. Infected tortoises can appear asymptomatic.

And: Then there are the totally unexpected issues, ones that could not even be predicted with a crystal ball. About a decade ago one family showed up with their turtle and registered it just prior to the Patterson Park race. It was a bog turtle, a species protected in Maryland, at least on paper. The people running the race simply entered it in the "all other types of turtles" category, but the parents became rather nervous when a few of us told them about the legal status of the species. They and the turtle disappeared sometime before the start of the race. I have always wondered what became of the animal.

Barnett (2010) presents a similar set of concerns regarding issues with turtle derbies and concludes that these turtle races serve no useful purpose and are very detrimental to the turtles on a number of important levels.

Are there solutions?

It would be difficult to collectively manage turtle races as they are individually run by a wide array of independent organizations, town chambers of commerce, and county governments. Often they are sponsored by civic clubs, churches, local dog rescue organizations, and hospitals, and some have become important for raising both funds and awareness for various admirable causes. Many are coupled with state fairs, holiday celebrations, parades, carnivals, and beauty pageants. In most cases they are family oriented local events that span several generations. Many are considered an important component of small town tradition.

Before some nincompoop suggests that perhaps children entering turtles in these races and participating in these events in later years will become instilled with an interest in reptile conservation, let me state that that same thought has already been proposed as a justification of commercial sales of wild-caught reptiles at reptile shows (Smith, 2006). I think this argument to justify reptile expos has been adequately addressed (Lee, 2007). Do children attending horse races develop an interest in becoming stable keepers and ranchers, or stewards of open spaces where wild horses can run free, or do they simply become ad-

dicted to horse racing as a social event or perhaps to the betting?

Regulations: Most states have no regulations that prevent turtle racing. State regulations as they relate to box turtles are summarized by Dodd (2001) and Franklin and Killpack (2009). While many states protect box turtles, and some prohibit the capture of turtles from the wild, and others do not permit commercial use (Nanjappa and Conrad, 2011), public and well-advertised turtles races continue to occur in many of these same states. There are a few examples of actions taken by regulatory agencies. In London, Ontario, 100+ native turtles were confiscated and released back into the wild days prior to a turtle race that had been run for the previous 36 years. The event continues, but now only pet store turtles are used in the race (O'Brien, 2010). Regulations by the Ontario Ministry of Natural Resources state that it is illegal to hunt any wild turtle in the province. Moore (2012) reports on a turtle derby that had been held for nearly 50 years in New Berlin, Pennsylvania, that was threatened to be closed down by the Pennsylvania Fish and Boat Commission. The Boy Scout troop that runs the race was notified that eastern box and wood turtles, along with four other species, had been on their no take list since 2007. Race participants arriving with any of these turtles could be fined $250. Based on the online comments and letters to the paper's editor, people were quite upset with the possibility that this traditional hometown race would be closed down. The Commission responded to the Boy Scouts' concerns with mixed messages and statements like "there were no plans to have officers issue citations." The race was run as scheduled but participation was far less than in previous years.

The Maryland Department of Natural Resources (2012) released an advisory about the use of wild turtles in turtle derbies a day before the 4th of July races in Bel Air, Maryland. They cautioned that the races pose "a potential health risk to the turtles involved, to wild populations into which they may be released, and to human participants." This press release states that ranavirus was found to be affecting wild turtle populations in Maryland, and cites the Centers for Disease Control and Prevention's concerns with *Salmonella* outbreaks. No actual state regulations were cited that preclude turtle races, but the news release did remind people that there are laws against releasing any reptiles or amphibians that have been held in captivity back into the wild. The message was about turtle and human health issues, and nothing was mentioned about the drain on native turtle stocks, an especially important point in that Maryland law prohibits their release back into the wild after the race.

Ideally, state and federal wildlife regulatory agencies could, like courts and law enforcement agencies, be free from political pressures and just do what is right. The Migratory Bird Treaty Act ratified in 1918 is very effective in protecting native non-game birds, and prohibits their misuse. For nearly a century this act has had the complete support of the American public. Could not a similar act be created for native reptiles and amphibians? In that the state of North Carolina protects all of its native species of rattlesnakes, surely bills worded to simply prohibit the foolishness that continues to be allowed with less formidable native reptiles could gain popular support. Road mortality and habitat loss resulting from development will continue to be a major threat to native turtles in general, and box turtles in particular. While it is unlikely that much will change on that front, turtle races and the commercial pet trade are nevertheless major negative drains on populations, and they could be quickly brought under control by our regulatory agencies.

Education: Despite the number of turtle races that are held each year in North America, and the numerous issues they present, the topic remains low on most people's radar. Major reference books on North American turtles (e.g., Ernst and Lovich, 2009) fail to discuss box turtle racing, and even ones specifically addressing just box turtles (Dodd, 2001; Franklin and Killpack, 2009) mention turtle racing only in passing.

Groups sponsoring these events and the general public need to be informed about the various potential and real issues with turtle races. Simply shutting down races infuriates many people, and a major educational opportunity is lost if the situation is not properly presented. This would be a good activity for regional herpetological societies and local turtle clubs to address. Meetings with event organizers and state wildlife officials could at least make everyone aware of the problem. Media releases and educational flyers to hand out at the events would allow people participating in the races to understand the health and conservation problems that these events can create. Sellers and Lee (2012) outlined a program where high school biology clubs could create proactive awareness programs to discourage local illegal sales of hatchling pet turtles to the general public. Perhaps similar programs could be developed regionally for turtle races. Conservation organizations could address the issue by preparing published guidelines for organizers of these races and offer alternatives to the ways in which races are currently run.

The ethics of stewardship need to be ingrained in the public. Providing information about the issues resulting from the use of box turtles in these races, creatures that are as likely to be as old as the children's grandparents, would be a good opportunity for promoting the importance of local land stewardship. Presentations at the race events could be important in educating the public about native turtles and their conservation needs.

Alternatives: If you must have them, there are other ways to run turtle races. At the Johns Hopkins races they "rent" turtles from an out-of-state turtle farm or biological supply house and then return them. In Ottawa, the turtles are borrowed from a local pet store. Both methods at least eliminate the take of turtles from the wild, and the potential contamination of personal pet and wild-caught turtles from exposure to disease. Permanently marked and registered turtles could be maintained by families throughout the year and used in subsequent races. In that box turtles have unique markings, identification photos could be taken and retained by the organization hosting the event. Pet turtles could be pit tagged for identification; the cost of the tags could be part of a registration fee.

While the option of retaining the same turtles and using them for races year after year sounds better than some alternatives, this may not be the case. For inexperienced owners, box turtles in particular are difficult to maintain in captivity. Simple setups as seen in pet shops are little more than live storage containers, and the animals do not fare well under these conditions. Turtle

rescue organizations are constantly given box turtles with all sorts of health issues from families who tried to keep them as pets. Smith (2011) put together a video showing some of the problems created by inexperienced people keeping box turtles as pets. The turtle shown at the 2:16 minute mark is one that has regularly shown up for the last several years at the Patterson Park race. Attempts to educate the family overseeing its care have not been successful. In the early '80s, the museum where I worked had a "lets bring nature to the class room" program. Live box turtles were one of the major components of the program. Not only did they not do well in simple setups in classroom settings, but there was a high mortality in the demonstration turtles kept at the museum. Eventually the museum hired a professional animal care staff just to oversee the education department's animals. The real downside of the program was the fact that school children all over the state, on seeing the box turtles bumping about in their 10-gallon classroom aquariums, would want one too. I wonder how many adult box turtles were removed from the wild as a direct result of this single ill-advised aspect of the program.

The organizations sponsoring the Maryland races have few restrictions other than the actual rules of the race itself. Okay, snapping turtles were banned from one of the races. At the various races I have attended, no informational handouts were provided to participants. The program for the 2012 Independence Day Celebration in Bel Air states "Pursuant to Maryland Department of Natural Resources restrictions on turtles captured in the wild, no turtle may be entered whose carapace is less than 4 inches long. Limit 1 member of each turtle species [box, painted, red-bellied, etc.] per adult. 3 turtle limit per entrant." The regulation itself is actually aimed at *Salmonella* issues and commercial sales of turtles less than four inches; nothing is stated against owning a small turtle, or racing one, but you are not allowed to release it afterwards. There clearly needs to be some communication between organizations sponsoring these races and the state and federal agencies overseeing our native wildlife. Likewise, regional nature centers, turtle clubs and local herpetological societies need to prepare educational handouts about native turtles and wildlife regulations and include some dos and don'ts that would address the major concerns of local turtle races.

Perfect solutions are limited, and perhaps nonexistent. The best bet would be doing away with the events all together. Keep in mind that many of the races are held in the name of important causes, while others are summer events attracting much-needed business to small rural communities. The two obvious courses of action are educating the public about the problems that these races cause for native turtle populations, and then demanding that the organizations sponsoring the events address the issues. Pre-registering turtles of known origin for the races to ensure that they were not taken from the wild just for the event would be a start. Renting turtles from turtle farms, as is being done in the Johns Hopkins races in Baltimore, is another solution. Neither of these solutions, however, address the potential human health risk, the concerns that have been expressed regarding disease and parasite transfer, or the stress placed on the turtles.

In 1998, Florida began protecting gopher tortoises, and towns and cities sponsoring gopher tortoise races switched to mechanical tortoises. There are now "mock" tortoise races in Panama City and San Antonio, Florida [http//rattlesnakefestival.com/gophers-races; and http://www.youtube.com/watchg?v=y+88gawEUOo]. The annual events continue to draw sizable crowds. Even the practice of rounding up rattlesnakes for the San Antonio Rattlesnake Festival has become a thing of the past. Another alternative is substituting some other event for a similar one that does not involve wildlife. One successful alternative activity has been rubber duck races, where numbered rubber ducks are released, for example, in a stream, and the first toy duck that floats past the finish line is the winner. This has been formally suggested by PETA as a cruelty-free substitution for turtle races (Daubs, 2010).

Once I learned that the Patterson Park race had been postponed to an as yet determined date in September, I headed back home to North Carolina. It was the 4th of July weekend and the traffic between Baltimore and Richmond was stop and go all the way; it was an Interstate, but often I found myself moving at only 10–20 miles per hour. For some reason the AC does not work on my hybrid at low speeds, and even with it cranked up to the highest setting it was still hot. Once clear of the Richmond/Petersburg congestion, everyone was back up to speed and truckers were making up for lost time. And then the car overheated. I managed to make it to a rest stop and opened the hood, only to realize that even though I have had this car for over 6 years, I did not have a clue as to how the cooling system worked on a hybrid. I checked the fluid levels; all seemed fine. Within an hour I had the car running again. I am not sure what I did, maybe my Ford Escape just has a mind of its own. To prevent the engine from overheating again, I drove the last 150 miles in what was clearly the hottest day of the year, perhaps a decade, with the AC turned off. Annoying, and inconvenient, but it seemed like the best solution for making it back home. Maybe it was the heat and my mind was not working right, but what is it about turtle races? I get horse racing, motor speedways, and dog tracks. Maybe it's not the speed per se, but our addiction to sporting events, competition, rooting for persistent underdogs, or betting. Only by adding the key ingredient, really silly, can the growing success of turtle races be explained. Perhaps this is the direction to explore in looking for alternatives to turtle races. Could this grow into virtual turtle races on computer screens, or maybe Aesop's idea of interspecies races like ones between obstinate tortoises and swift hares would finally catch on? Snails, slugs, inchworms, and shopping carts might all make good contestants. How about swift boats? Here is an idea: one could race numbered turtle eggs as they rolled down an inclined plane. With a cushioned finish line infertile eggs could be raced for years. And if that would create too much excitement, for say people in retirement villages, one could hold turtle egg hatching races. Number the eggs and bet on the order that individual eggs would hatch. Or as the turtles hatch out announce the egg's number and fill in bingo cards.

Would I return for the September races? I was not having my best day and perhaps this was not the time for me making such decisions, but probably not. And then I thought of the 50 or so box turtles that would be sitting about in cardboard boxes in hot garages for the next two months. Most people would have no

clue as to how to care for them, and then what? Once raced would the turtles be released? September is just before the onset of hibernation, and is probably one of the worst times for a box turtle to be looking for home. Oh, that's right, they can't be released—Maryland has regulations about such things. Maybe they can just go into training and someday we will be watching these very turtles trying out for the Turtle Olympics. Somehow, the annoyance of the overheated car and my perspiration issues began to seem to be rather minor in the scheme of things.

How can one put this injustice into a perspective that the general public will understand? Almost everyone has admiration for age and time. Here was Patterson Park, a site that played an important role in three wars that set in place the very existence of this country. And then too there were the park's trees, most well past the century mark, and the tens of thousands of inner-city children that throughout this time period came to value green spaces because of Patterson Park. And then we have the turtles—many of the ones being raced are older than the grandparents of the children attending the event. Turtles whose own grandparents roamed the once-forested areas surrounding the city as bombs were bursting over Baltimore Harbor in 1812, creatures that themselves came from parents hatched during the American Revolution. These descendants are used in the races for the one- or two-hour event recognizing Independence Day, and then become disposable objects. There is no regard for their needs in a rapidly changing landscape; seemingly our compassion for life does not extend to turtles. These races need to be converted into educational opportunities, lessons that teach respect for the local creatures that share our lives and our history. Conservation concerns need not be limited to polar bears and whales.

The real race, it seems, is to save local turtle populations from this well-intended nonsense. This is not something that needs further study, or detailed quantified analysis, it's common sense. We are dealing with threats to individual turtles, to existing turtle populations, and the exposure of both native turtles and amphibians as well as people to a number of highly contagious bacterial and viral diseases. Just recognizing the likelihood of the races becoming agents for spreading transmittable diseases through both wild and captive turtle populations should be a major concern. With luck, natural resource agencies, or event organizers can come up with practical solutions in a more timely fashion than the city of Baltimore took to finally erect its monument to Pulaski. But the first step is the need to recognize that these races are a problem.

And I am sorry, it was not my intent to leave you in total suspense. In 1777 during the Battle of Brandywine, Pulaski both changed the course of the Revolutionary War and saved Washington's life, and Booger didn't even place in the first heat of the 2011 Bel Air turtle derby; he was unceremoniously disqualified. Oh yeah, the winning frog in three consecutive hops jumped 148 inches. I know you are a bit disappointed, but so much for inappropriate booger jokes and derogatory ethnic comments regarding installation of light bulbs.

Plodding wins the race. Aesop ca. 550 BC

Acknowledgments

I think it appropriate to acknowledge Alex Heeb for his tireless efforts to educate people, sponsoring organizations, and the academic community about the many negative issues associated with turtle races and exposing the magnitude of the problem. He started this ongoing effort while still a high school student and maintains a web page devoted to this topic (http://users.ccewb.net/lonerock/turtles/turtleracing.htm). Sandy Barnett and an anonymous contributor provided some important background information on several of the races discussed. I thank Sandy Barnett also for the photographs she contributed, and Leo Schleicher for layout of the photomontages.

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What You Missed at the September Meeting

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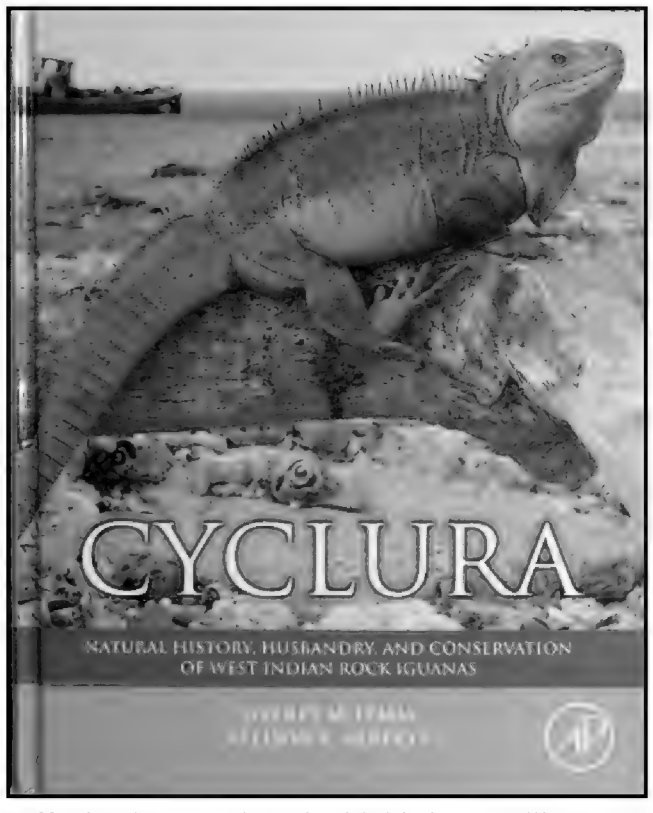
Jeff Lemm stood a foot from the base of a 70-foot-high sandstone bluff, two miles or so into a fairly challenging hike, staring straight ahead at a sheer wall covered with a rich green coat of small ferns. All of us appreciated the beauty of the scene and thought that Jeff was merely engrossed in an up-close examination of the plants. Then he said, "Did anyone see this black rat?" and pointed to the barely exposed nose of a small *Pantherophis spiloides* coiled in the greenery at eye level. By the time I got to his location the snake had been a bit more exposed, but when Jeff spied it only a few scales were visible. We all know that luck is a part of field herping, but we also know that one has to be prepared to take advantage of the opportunities presented. Jeff is always prepared. Spotting a few scales in a sea of green is just a small example of his herping skills.

Jeff Lemm. Photograph by Dick Buchholz..

Jeff Lemm was our September speaker. I would write another extensive description of the man, but I'm too lazy for that and I don't want to add to Jeff's hat size. His ego is no small thing, though he does have reason for that and he does mostly handle himself with modesty and reticence. OK, that's a lie. When asked how he saw that little black rat, he replied, "There is no price tag for awesomeness," or something of the sort. For a complete summary of the man see Bull. Chicago Herp. Soc. 45(5):89-91, 2010, my account of his last speaking engagement. If you don't wish to look up that article, I'll just say he's a herpetologist who serves as Senior Research Coordinator in the Applied Animal Ecology Division at the San Diego Zoo Institute for Conservation Research. For about 20 years, he's been doing research on the conservation of rock iguanas (*Cyclura* spp.), and having just completed a book about those animals, he was gracious enough to deliver a presentation for us based on the book. He is also a really fine field herper who founded the North American Field Herping Association that all of you interested in field herping should check into (nafha.org). He's also funny, a great field companion, and terrific speaker. For more accolades you're just going to have to read my earlier article.



Jeff's book, co-authored with his boss, Allison Alberts, is the best and most up-to-date source of information on these lizards.

I'll tell about the trip that we took with Jeff a little later, but for now, let me write about his presentation titled, "Rock Iguanas: Conservation of the World's Most Endangered Lizards." He mentioned that his slides have more text than normal, but they were all illustrated with photos, mostly taken by Jeff. The opening shot was a majestic Anegada Island iguana (*Cyclura pinguis*) basking on a log with a beached boat in the background, making for an artistic picture that immediately evoked the iguanas' habitat. Rock iguanas range from the Bahamas to the Lesser Antilles, with the Anegada Island lizard recently revealed as the basal form. Rock iguanas are characterized by specialized eyes that look bloodshot and are presumed to act as sunglasses to protect from the glare of the creatures' preferred habitat. The toes have cone-shaped scales that allow even a full-grown adult to clamber up steep limestone rock faces. Teeth are tricuspid and capable of delivering a severe bite and the tail is ringed with scales that allow it to act effectively as a weapon. They are large and primarily herbivorous ground-dwelling lizards that encompass 16 taxa. They are considered the most endangered group of lizards in the world.

With slides and pictures Jeff led us through each of the taxa, adding small addendums to the slides and allowing the audience to read much of the text. His conversational style and tremendous knowledge meant that we were continually involved with his presentation. He talked about the Turks and Caicos iguana (*C. carinata carinata*), among the smallest rock iguanas and the Jamaican iguana (*C. collei*), thought to be extinct for 50 years but rediscovered in 1991 and still critically endangered in the wild with less than 150 adults. Perhaps the best known species

Rock iguanas always look regal. An adult female Sister Isles iguana (often incorrectly called the Little Cayman iguana).

A hatchling Anegada Island iguana emerging from the nest.

of *Cyclura*, the rhinoceros iguana (*C. cornuta*), is found throughout the island of Hispaniola and is sometimes sympatric with Ricord's iguana (*C. ricordii*). Photos of one of the largest rock iguanas, the Andros Island iguana (*C. cychlura cychlura*) and one of the smallest, the Exuma Island iguana (*C. cychlura figginsi*) were followed by photos of the Allen Cays iguana (*C. cychlura inornata*) and Grand Cayman blue iguana (*C. lewisi*), the most endangered of the group. The Sister Isles iguanas (*C. nubila caymanensis*) are more often referred to after one of the islands where they're found, Little Cayman. The most stable populations of the group and Jeff's favorite are the Cuban iguanas (*C. nubila nubila*). They're stable because of the tremendous number of small islands just offshore from Cuba that they inhabit. Jeff studied them at Guantanamo Bay. The Anegada Island iguana has velvet-like skin. A stunning head shot of a gold and blue White Cay iguana (*C. rileyi cristata*) resided with an equally stunning head shot of a red and blue Acklin's iguana (*C. rileyi nuchalis*) and was followed by another pretty shot of a gold and blue San Salvador iguana (*C. rileyi rileyi*), demonstrating the variability among these weakly defined subspecies which are small but beautiful. The Navassa Island iguana (*C. cornuta onchiopsis*) was limited to that island and was probably driven to extinction over 50 years ago by feral animals, guano mining, hunting and military operations.

Cyclura live in tropical dry forests, primarily in eroded limestone areas that provide them ample spots of refuge. Jeff says that few researchers survive without a scratch when diving for the lizards in such habitat. The limiting factor to survival is vegetation. As one of the largest seed dispersers, the lizards are important in saving the endangered tropical dry forest habitats. Photos of dry, barren landscapes are shown. Home ranges vary widely between the species, though the polygynous males have larger territories and expand those during breeding season. They feed on a wide variety of plants and take occasional animal protein from road kill to juvenile iguanas. While adults have little to fear from natural predators, excepting the largest Cuban boas (*Epicrates anguilifer*), the young are preyed upon by everything from smaller snakes, to ospreys, to barracudas. Of course feral animals take a tremendous toll. A photo of two males nearly nose-to-nose demonstrates the exacting boundaries that males maintain even though the lines are invisible to human eyes. While very rare, disputes are sometimes settled by combat, which can result in missing limbs, though the losers seem to survive quite well with the amputations. Jeff says some of their research subjects had names such as stumpy and half-leg. A dramatic photo of two males in conflict with the aggressor nearly vertical helped us to realize the occasional viciousness. Oviposition takes place about a month after copulation and the number and size of the eggs varies with the species. All *Cyclura* lay eggs in open soil digging chambers varying from shallow holes a few inches deep to complex tunnels several feet long. The exception is the Andros iguana that Chuck Knapp has documented as depositing eggs in termite mounds. Most females defend the nest, some for a month or more.

A slide appeared with pictures of a skinny dog, a beach full of people and iguanas, a bunch of goats, a cat and a mongoose, a devastated landscape with brush piled into waste mounds, and an iguana skull and bones in the foreground with a makeshift tent in the background. The title is "Threats—all manmade!!!" Between the illegal hunting, introduced species, cars, invasive plants and habitat destruction, it's easy to see why these lizards are in danger of extirpation. In 1991 the International Union for Conservation of Nature/Species Survival Commission (IUCN/SSC) formed the Iguana Specialist Group (ISG) to address the problems facing these animals. Through habitat protection, invasive species control, head-starting, translocation, zoos, research and education and outreach, the ISG has managed to buy all species of *Cyclura* some breathing room while not being able to declare any species saved. One of Jeff's slides showed a Cuban iguana holding the handle of a net draped over an invasive species—Jeff. Jeff stressed that all conservation efforts require the support of the local people. Without local cooperation any conservation attempt is doomed to failure.

We saw slides of the new and world's largest rock iguana breeding facility at the San Diego Zoo Safari Park. Jeff went into some detail about husbandry and stressed that they are not green iguanas and cannot be cared for the same way. They have high metabolisms and consume large amounts of food, need high-temperature basking areas, and require secure hiding spots. The nests need deep soil and it's often difficult to locate the eggs. A slide of eggs in the soil of a flowerpot showed how creative one female was. Jeff said that there was no external

All of the threats to otherwise sustainable populations of rock iguanas are anthropogenic, like these introduced goats.

One of Jeff Lemm's goals in southern Illinois, a timber rattlesnake, was found right off the bat. Photograph by Stephen L Barten.

Andrew Gilpin demonstrating to Jeff Lemm another method to negotiate some slippery southern Illinois terrain. Photograph by John Archer.

indication that the eggs were buried in that pot. As with other facts about these iguanas, husbandry details vary among species.

Jeff finished with what he called fun pictures. Photos of him photographing the iguanas. Photos of him carrying the iguanas. Iguanas on idyllic beaches. Iguanas among cactus. Iguanas perched on rocks and hiding in grass. The closing slide was an iguana at sunset. He mentioned that his talk roughly followed the layout of his book but that was no excuse not to buy the book. He filled his talk with interesting anecdotes and clever jokes that I'm incapable of recreating. As usual, you're short-changed by having to read these articles. And remember that if we don't help to save these animals, who will? Participate by going to the International Iguana Foundation website at www.iguanafoundation.org.

Allow me to return to the beginning of this article and Jeff in the field. One of the joys of belonging to your society is the opportunity to hang out with some great people chasing animals in the out of doors. The day after the meeting a group of us headed to the southern part of Illinois. Jeff had planned his talk to coincide with a particularly good time to visit that part of the state. This world traveler had high hopes of finding two venomous snakes he had never seen in the wild, a timber rattlesnake (*Crotalus horridus*) and a copperhead (*Agkistrodon contortrix*). We had a group of first class herpers driving from Chicagoland, including Mike Dloogatch, Steve Barten, Gery Herrmann, Jenny Vollman, and Linda Malawy. CHS presenter Mike Pingleton drove from Champaign, Illinois, Sara and Andrew Gilpin drove from Iowa, and Kyle Salzmann arrived from Wisconsin. We were met in the south by CHS presenter and local resident John Palis. I doubt that a team of field herpers that included Jeff Lemm, Mike Pingleton, and John Palis could be anything less than productive and fun, but all the participants were experienced, congenial, funny, and great company. For two days we roamed the southern part of the state. For two days we found an amazing number of animals while sharing laughs, food, drink and knowledge. We found Jeff's goals (four of each!), as well as green watersnakes (*Nerodia cyclopion*), rough greensnakes (*Opheodrys aestivus*), slimy salamanders (*Plethodon glutinosus*), and green treefrogs (*Hyla cinerea*). We saw lots of cottonmouths (*Agkistrodon piscivorus*) and ribbonsnakes (*Thamnophis proximus*). The species count was over thirty, which is not exceptional for the herp cornucopia that is southern Illinois, but the weather was great, the scenery riveting, most of the food tasty, and the beer cold. We all are frequently questioned about our hobby and why we remain fascinated by these animals. Most people don't understand. We're asked why we hike miles to spy a turtle or flip tons of rocks to find a venomous snake. All of the herpers in the field that weekend know why we do it. Just that trip would answer that question easily. Thanks to all of the participants for an enviable trip. Thanks to Jeff Lemm for another great talk.

Really, Steve? There's something in that hole worth photographing? Photograph by John Archer.

Yup, it's a copperhead. Photograph by Stephen L. Barten.

Unofficial Minutes of the CHS Board Meeting, September 14, 2012

The meeting was called to order at 7:42 P.M. at the Schaumburg Public Library. Board members Mike Dloogatch, Jim Foster and Barbara Khan were absent.

Officers' Reports

Recording Secretary: The minutes of the August 17, 2012, board meeting were read and accepted.

Treasurer: The August financial report was presented, discussed and accepted.

Corresponding secretary: Deb reported few phone calls except about red-eared sliders.

Sergeant-at-arms:Attendance at the August general meeting was 59

Committee Reports

Shows:
• Notebaert, first full weekend of each month. Josh Chernoff is coordinator.
• Garfield Park Conservatory (Halloween), October 31, 4 – 8 P.M.
• SEWERFest, November 11.
• Chicagoland Family Pet Expo, Arlington Park Racecourse, March 15–17, 2013.

ReptileFest 2013: April 13-14, 2013. This will be the 20th anniversary. Kim Klisiak is working on new cards. Flyers will be changed so a small number can be printed for NARBC without listing sponsors since they have not been confirmed yet.

Old Business

Junior Herpers club: The Notebaert has agreed to try 6 months of meetings. We need to do background checks on all adult volunteering with the program. This will cost $150 per person. Aaron moved to allocate $1500.00 for background checks. Cindy seconded. Discussion: We need to do this to protect the society as well as the kids. The motion passed unanimously. We will provide membership cards for the kids. They will need to present them to enter the Notebaert with no admission charge for the meeting. We will need to monitor the attendees so that there is no wandering the museum before or after the meetings.

National Herpetological Society: The website is almost ready, and the board is in place. They are looking for true facts and info on deaths/injuries from reptiles, as well as positive, pro-herp news stories.

New Business

The Little Red Schoolhouse Nature Center has offered a room for board or other meetings if we need one.

Round Table

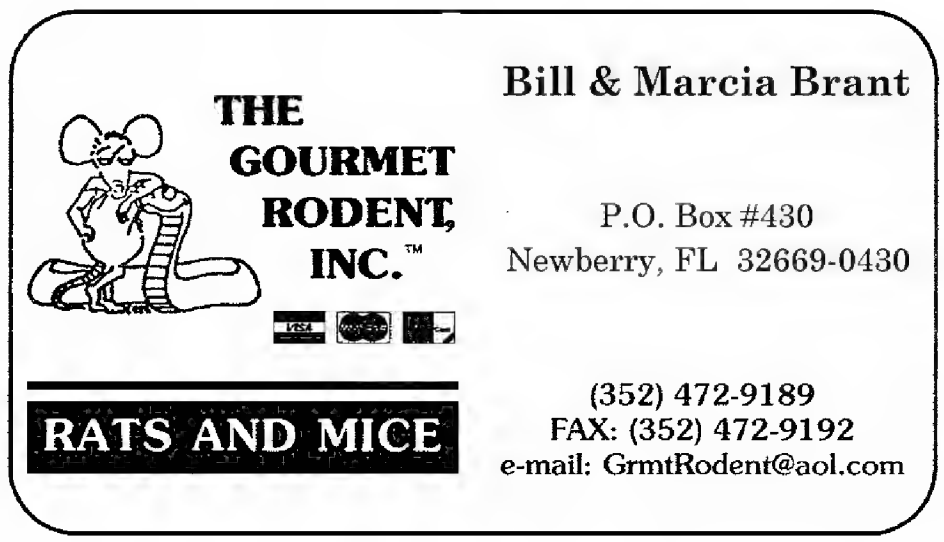
Mike Scott is moving to Addison.

Aaron LaForge is the proud father of another baby girl, Phoebe.

Bob Bavirsha will be at Croctoberfest at the Lake Forest Discovery Center, October 20.

The meeting was adjourned at 8:56 P.M.

Respectfully submitted by Jenny Vollman



Advertisements

For sale: rats and mice—pinkies, fuzzies and adults. Quantity discounts. Please send a SASE for pricelist or call Bill Brant, *THE GOURMET RODENT*, PO Box 430, Newberry, FL 32669-0430, 352-472-9189, E-mail: GrmtRodent@aol.com.

For sale: from **The Mouse Factory**, producing superior quality, frozen feeder mice and rats. Our mice and rats are vacuum-packed to greatly extend freezer life by reducing freezer burning and preserving vitamin and nutrient content. We feed our colony a nutrtionally balanced diet of rodent chow, formulated especially for us, and four types of natural whole grains and seeds. For a complete price list please visit our web site, www.themousefactory.com. We accept all major credit cards, PayPal or money orders. Call us **toll-free** (800) 720-0076 or send us an e-mail at info@themousefactory.com. Write us at PO Box 85, Alpine TX 79831.

For sale: **highest quality frozen rodents**. I have been raising rodents for over 30 years and can supply you with the highest quality mice available in the U.S. These are always exceptionally clean and healthy with no urine odor or mixed in bedding. I feed these to my own reptile collection exclusively and so make sure they are the best available. All rodents are produced from my personal breeding colony and are fed exceptional high protein, low fat rodent diets; no dog food is ever used. Additionally, all mice are flash frozen and are separate in the bag, not frozen together. I also have ultra low shipping prices to most areas of the U.S. and can beat others shipping prices considerably. I specialize in the smaller mice sizes and currently have the following four sizes available: Small pink mice (1 day old—1 gm) , $25 /100; Large pink mice (4 to 5 days old—2 to 3 gm), $27.50 /100; Small fuzzy mice (7 to 8 days old—5 to 6 gm) , $30/100; Large fuzzy mice / hoppers (10 to 12 days old—8 to 10 gm), $35/100 Contact Kelly Haller at 785-234-3358 or by e-mail at kelhal56@hotmail.com

For sale: High quality, all locally captive-hatched tortoises, all bred and hatched here in the upper midwest. Baby leopards, Sri Lankan stars, and pancakes usually available, and are all well-started and feeding great! Leopards are $125 ea., Sri Lankans (2012 hatched) $475 ea. And Pancakes are $195 ea. Leopards for out of state sale/shipping require a veterinary health certificate (inquire for cost). E-mail at KKranz1@wi.rr.com or call Jim or Kirsten at 262 654 6303.

Free to a good home: Over 30 years of the *Bulletin of the Chicago Herpetological Society* (1982-2012; 1–2 issues may be missing). Boxed and ready for pickup in Oak Park, Illinois. Email: robstreit@aol.com or call Rob Streit at 708-383-6830.

Herp tours: **Costa Rica herping adventures**. Join a small group of fellow herpers for 7 herp-filled days. We find all types of herps, mammals, birds,and insects, but our target is snakes. We average 52 per trip, and this is our 10th year doing it. If you would like to enjoy finding herps in the wild and sleep in a bed at night with air-conditioning, hot water and only unpack your suitcase once, instead of daily, then this is the place to do it. Go to our web-site http://hiss-n-things.com and read the highlights of our trips. Read the statistics of each trip and visit the link showing photos of the 40 different species we have found along the way. E-mail at jim.kavney@gmail.com or call Jim Kavney, 305-664-2881.

Turtle Owners: Moving into the southwestern suburbs of Chicagoland? Home For Sale, with fully equipped Turtle Ponds, indoor and outdoor. Housed in glass solarium which is heated, cooled, and humidity controlled, with plumbing for hot water. MLS Listing #: 08025672. To schedule "viewing" call Janet Connelly, Realtor, at (708) 431-4718. (Classic Realty Group).

Line ads in this publication are run free for CHS members—$2 per line for nonmembers. Any ad may be refused at the discretion of the Editor. Submit ads to mdloogatch@chicagoherp.org.

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News and Announcements

2013 CHS HERPETOLOGICAL GRANTS PROGRAM

The mission of the Chicago Herpetological Society is education, conservation and the advancement of herpetology. To further this mission, the CHS provides grants of up to $1,000 in the following categories:

1. Illinois Herpetology
2. Graduate Student Research in Herpetology
3. Undergraduate Research in Herpetology
4. Conservation
5. Captive Management, Husbandry and Propagation

The number of grants awarded in each category will depend on the grant applications received; it is possible that not all categories will receive awards and some categories may receive more than one award. The Grants Committee reserves the right to reassign the category under which a given proposal is submitted.

To qualify for a grant, the applicant must be a member of the Chicago Herpetological Society as of December 31, 2012. In accepting a grant, the recipient agrees to acknowledge the Chicago Herpetological Society in any publications or public presentations of research funded by this grant. Further, the recipient agrees to abide by all state and federal laws.

Recipients must submit a short report of their research findings to the CHS within 6 months of their anticipated completion date. The report should be written for a general audience and be suitable for publication in the CHS *Bulletin* or on the CHS webpage. This requirement may be waived if results will be published in a peer-reviewed journal within a year. Recipients may be invited to present a program at a CHS general meeting.

Applications must include the following:

1. Project title
2. Applicant's name, address, phone and email
3. Submission category
4. Introduction—Provide background for the proposed work. Include a clear statement of the objectives of the proposed work.
5. Materials and methods—Describe the study site and the materials and methods (in non-technical terms) that will be used to accomplish the objectives of the proposed research. Attach plans, diagrams and maps as necessary. Indicate whether you have an approved Animal Care (IACUC) protocol covering the proposed methods or whether you will be submitting such a protocol.
6. Applicability and broader implications—How does this work apply to conservation, education and the advancement of herpetology?
7. Budget—Indicate the budget for the entire project and make clear what portion the CHS grant money would fund.
8. Anticipated completion date for the research
9. Applicant curriculum vitae
10. Letters of support — Student applicants must include a letter of support from a faculty advisor. For non-academic individual and institutional applicants, letters of support from collaborating partners or institutions are strongly encouraged. Letter(s) of support may be emailed and should include an address and phone number at which the writer can be contacted. Letter(s) of support may also be sent by postal mail.

Proposals should be submitted as email attachments. Attachments should include the applicant's name in the file name. Proposal text should not exceed five double-spaced pages (excluding literature cited, applicant's CV, and letters of support) and should be typed using a common font (e.g., Arial, Times, Courier) no smaller than 10pt. Applications must be received by December 31, 2012, and awards will be announced by February 15, 2013.

Proposals should be emailed to grants@chicagoherp.org

Questions should be directed to Mike Dloogatch (773) 588-0728, or grants@chicagoherp.org

UPCOMING MEETINGS

The next meeting of the Chicago Herpetological Society will be held at 7:30 P.M., Wednesday, October 31, at the Peggy Notebaert Nature Museum, Cannon Drive and Fullerton Parkway, in Chicago. **Gerold Merker**, a private breeder from northern California, will speak to us about rosy boas. Gerold is a co-author of *Rosy Boas: Patterns in Time* and several other books on snakes of the western U.S..

The November 28 meeting will include the annual election of officers and members-at-large of the CHS Board of Directors. Also at this meeting local CHS member **Julie tenBensel** will present "Today's Dragons: Captive Keeping of Both Arboreal and Terrestrial Monitors."

The regular monthly meetings of the Chicago Herpetological Society take place at Chicago's newest museum—the **Peggy Notebaert Nature Museum**. This beautiful building is at Fullerton Parkway and Cannon Drive, directly across Fullerton from the Lincoln Park Zoo. Meetings are held the last Wednesday of each month, from 7:30 P.M. through 9:30 P.M. Parking is free on Cannon Drive. A plethora of CTA buses stop nearby.

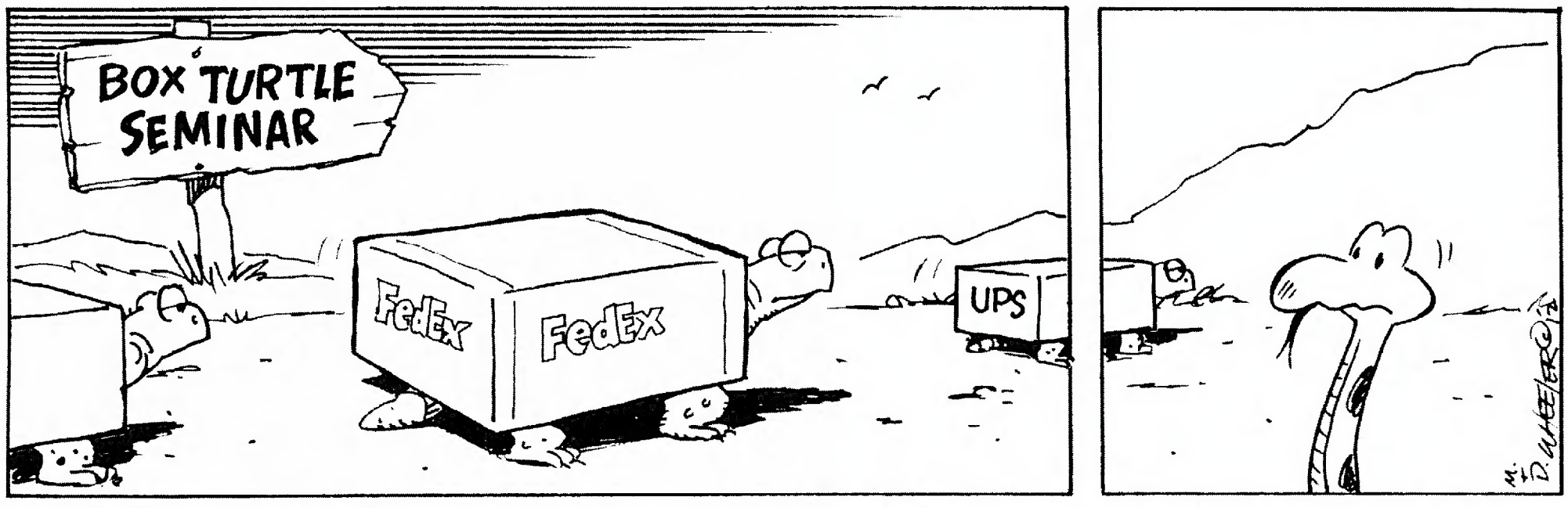
Board of Directors Meeting

Are you interested in how the decisions are made that determine how the Chicago Herpetological Society runs? And would you like to have input into those decisions? If so, mark your calendar for the next board meeting, to be held at 7:30 P.M., October 19, in the adult meeting room on the second floor of the Schaumburg Township District Library, 130 S. Roselle Road, Schaumburg.

The Chicago Turtle Club

The monthly meetings of the Chicago Turtle Club are informal; questions, children and animals are welcome. Meetings normally take place at the North Park Village Nature Center, 5801 N. Pulaski, in Chicago. Parking is free. For more info visit the group's Facebook page.

THE ADVENTURES OF SPOT



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